

## CLAIMS

1. A speed sensor for a moving member (8), the sensor being characterized in that it comprises means (27; 34) for constituting a magnetic singularity on a portion (9) of the moving member, and a sleeve slidably receiving said portion and including at least an annular coil (20, 21) and an annular permanent magnet (22, 23) disposed on a common axis between annular pole pieces (24, 25).
2. A sensor according to claim 1, characterized in that the magnetic singularity (27; 34), the coils (20, 21), and the permanent magnet (22, 23) are arranged so that the coil provides a linear signal that is independent of the position of the moving member (8).
3. A sensor according to claim 2, characterized in that the sleeve has two coils (20, 21) and a tubular body (17) having two magnetic assemblies (18, 19) mounted in opposition to each other on a common axis, which assemblies are separated by a spacer (28), each having one of the coils and, on its side remote from the spacer, one of the pole pieces (24, 25) in such a manner that the spacer, the coils, and the pole pieces form a housing (26) for slidably receiving the portion (9) of the moving member (8) that presents the magnetic singularity (27; 34).
4. A sensor according to claim 3, characterized in that the sleeve has two permanent magnets (22, 23), each magnetic assembly (18, 19) having one of the permanent magnets, with the permanent magnet being mounted around its coil (20, 21).
5. A sensor according to claim 1, characterized in that the means for constituting the magnetic singularity comprise a ferromagnetic insert (27) secured to a non-magnetic portion of the moving member (8).

6. A sensor according to claim 1, characterized in that  
the means for constituting the magnetic singularity  
comprise an outside groove (34) made in a ferromagnetic  
5 portion of the moving member (8).